

Technical data lumina MS4

1. Product description



The LON multisensor lumina MS4 is a combination of occupancy sensor, two light sensors and infrared remote control receiver. An external temperature sensor can be connected.

The sensitive 4-element-PIR sensor technology for occupancy detection guarantees reliable detection of occupants even when they are seated. Therefore lumina MS4 is ideally suited for occupancy related control functions within LON networks.

The light sensors provide the basis of automatic lighting functions, such as constant light control or daylight switching. One light sensor measures the global room brightness whereas the second light sensor measures the brightness directly beneath the multisensor (spot measurement).

Lights or blinds can be operated and scenes can be selected by means of the optional IR remote control. Additionally, a fan stage can be selected manually.

Optional external temperature sensors for ceiling mounting or pendular temperature sensors can be connected.

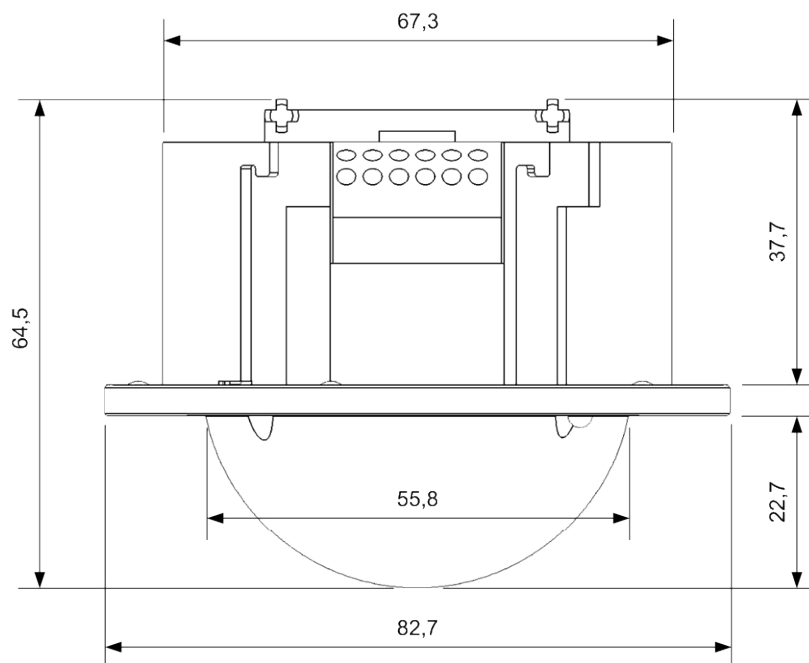
Alternatively presence detectors of type lumina PM (order no.: 910 121 or 910 122) can be connected for expanding the presence detection range.

The multisensor is available in two versions. The EB version is suitable for installation in suspended ceilings, ceiling sails or recessed junction boxes. The AP version allows surface mounting.

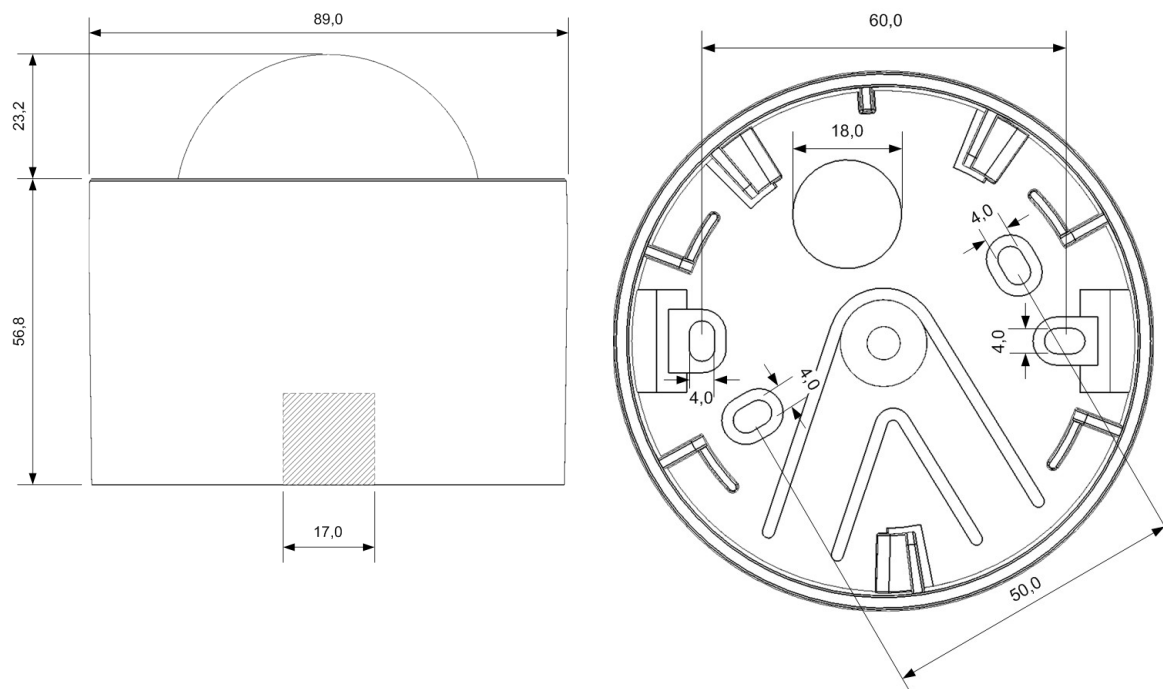
For configuration purposes, comfortable LNS plug-ins are available.

2. Mounting and connecting

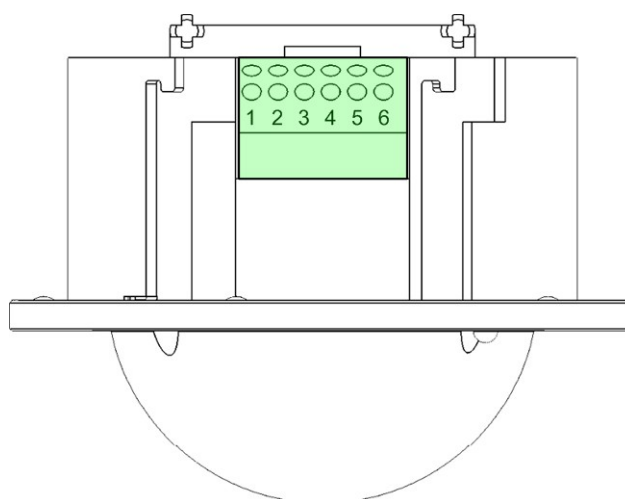
2.1. Dimensions installation variant



2.2. Dimensions surface mount variant



2.3. Connections



| Pin | Meaning |
|-----|---|
| 1 | 24V ~/+ power supply |
| 2 | 24V ~/- power supply |
| 3 | LON A |
| 4 | LON B |
| 5 | RTD (temperature sensor or presence detector lumina PM) |
| 6 | |

2.4. Note for connecting a temperature sensor

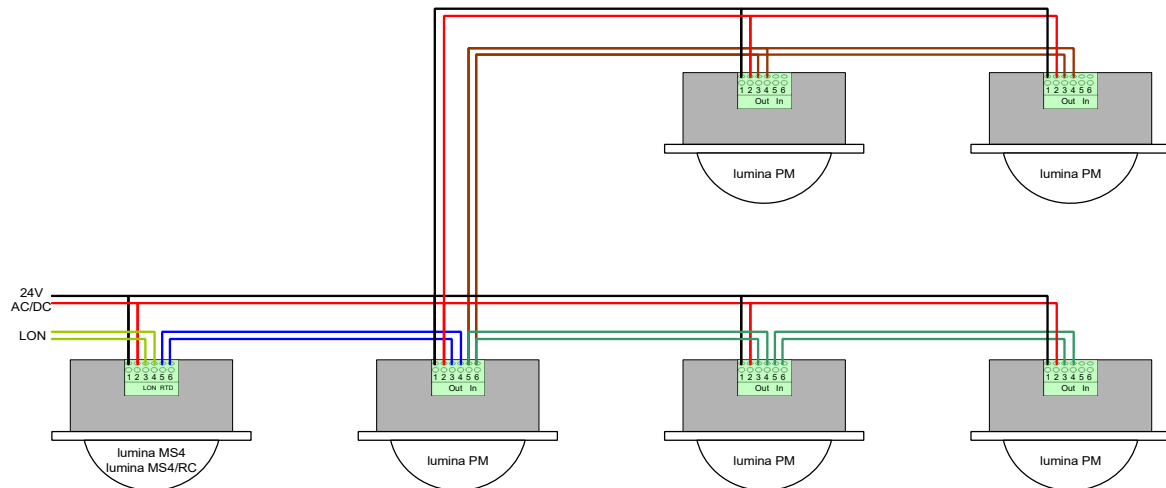
When connecting an external temperature sensor, the installation distance between its cable and potential disturbing sources, e.g. mains supply lines, must be considered. Disturbances have a negative impact on the measuring accuracy.

2.5. Note for connecting a presence detector lumina PM

When connecting an external presence detector, the installation distance between its cable and potential disturbing sources, e.g. mains supply lines, must be considered. Disturbances can cause a faulty presence detection. It is not allowed to connect more than one presence detector directly to the multisensor (see connection scheme).

2.6. Connection example for lumina PM

The following scheme shows an installation of a multisensor and several presence detectors. Please note that only one presence detector may be connected directly to the multisensor. For more information please see the data sheet of the presence detector lumina PM (order no.: 910 121 / 910 122).



2.7. LON Service-Pin

After the multisensor is connected you can commission the device by entering the neuron id manually or receiving it in the LON tool. Sending the neuron id (service pin message) can be triggered with a standard infrared remote control. For that press any button for at least 3 seconds.

Note: The remote control must use the popular NEC8 or NEC16 protocol.

When the spega remote control dialog DRC-10 is used, sending the neuron id (service pin message) can be triggered by holding the temperature button and pressing the right menu button "fan +" for 2 seconds.

3. Technical data

Supply

operating voltage, power 24V DC $\pm 15\%$, ca. 30mA, max. 65mA, power 0.7W
24V AC $\pm 15\%$, ca. 35mA, max. 80mA, power 1.2VA

Network

type of network FTT TP/FT-10 (78kbps)

Connections

Network 6-pin detachable plug-in terminal connection for
Power supply wire cross sections 0.2 - 1.5 mm² (solid and flex),
Temperature sensor two lines can be connected to each pin

Display

LED Multi color status led

Occupancy

PIR Sensor

Detection range, sitting 6m Ø, at 3m installation height

Detection range, walking 12m Ø, at 3m installation height

Light 10 ... 1000 Lux, Daylight and artificial light, V-Lambda-
curve,
2 sensors for global and spot measurement

Angular aperture global 180°

Angular aperture spot 30°

Switchable input for temperature sensor or presence detector

Temperature -10° - 50°C, Accuracy approx. $\pm 0.5^\circ\text{C}$,
for external 2-wire sensor of type PT1000, NI1000DIN
or NI1000TK5000

Presence input for presence detector lumina PM
(order no.: 910 121 / 910 122)

Remote control

Infrared Range ca. 5m

Housing

| | |
|---|-------------------------|
| Type of protection | IP 20 (EN 60529) |
| Dimensions installation variant | 84 x 68 mm (Ø x Height) |
| Fitting dimensions installation variant | 68 x 40 mm (Ø x Depth) |
| Dimensions surface mount variant | 89 x 80 mm (Ø x Height) |

Ambient conditions

| | |
|-----------------------|------------------------------|
| Operating temperature | -25°C ... +60°C |
| Transport temperature | -25°C ... +60°C |
| Relative humidity | Max 93% (w/o condensation) |
| Installation height | up to 2000 m above sea level |

CE-Conformity

2004/108/EC Electromagnetic Compatibility
2006/95/EC Low voltage directive

4. Order information

| Order number | Description |
|--------------|--|
| 911 113 W | lumina MS4-EB LON multisensor for suspended ceiling mounting, pure white |
| 911 114 W | lumina MS4-AP LON multisensor for surface mounting, pure white |
| 910 112 | dialog DRC-10 infrared remote control with LC display, compatible with multisensors lumina MS4, lumina MS4/RC and clima DMS-20 |

5. Support

The information given in this manual was carefully compiled. Should you have any further questions regarding this product, please contact:

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